

CLAIMS

- 1/ Method for enabling a user registered in an Network Access Server as already connected to a Virtual Private Network, called host Virtual Private Network, to communicate with at least one communication device outside of
- 5 said host Virtual Private Network, said Network Access Server having access over a data communication network to said communication device and to a plurality of Virtual Private Networks comprising said host Virtual Private Network, said method being characterized in that it comprises a step of sending messages belonging to a communication between said user and said
- 10 communication device over a logical channel between said Network Access Server and said communication device, said logical channel referring to an identifier of said host Virtual Private Network.
- 2/ Method according to claim 1, characterized in that it further comprises the
- 15 steps of:
- detecting at said Network Access Server a message from said user destined to said communication device; and
 - forwarding said message from said Network Access Server to said communication device over the logical channel referring to the identifier
- 20 of said Virtual Private Network.

3/ Method according to claim 1, characterized in that it further comprises the steps of:

- 5 - detecting a message from said communication device being received at said Network Access Server on the logical channel referring to the identifier of a Virtual Private Network, said message containing a user destination address;
- 10 - determining a user registered in said Network Access Server as already connected to said Virtual Private Network and corresponding to said destination address; and
- forwarding said message from said Network Access Server to said user.

4/ Method according to claim 1, characterized in that said messages
15 belonging to the communication between said user and said communication device are encapsulated in data packets, said data packets comprising a field containing said identifier of said host Virtual Private Network or an indication derived of said identifier.

5/ Method according to claim 4, characterized in that said messages
20 belonging to the communication between said user and said communication device are sent over a tunnel having said identifier of said host Virtual Private Network as tunnel identifier.

6/ Method according to claim 1, characterized in that said messages contain
25 IP packets comprising an IP address of said user.

7/ Method according to claim 1, characterized in that said communication device is a server belonging to a Virtual Private Network, called local Virtual

Private Network, associated to said Network Access Server and different from said host Virtual Private Network.

- 8/ Network Access Server for enabling a communication between a user and a communication device, said user being registered in said Network Access Server as already connected to a Virtual Private Network, called host Virtual Private Network, said communication device being outside of said host Virtual Private Network, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said host Virtual Private Network, said Network Access Server being characterized in that it further comprises means for sending messages originating from said user and destined to said communication device on a logical channel between said Network Access Server and said communication device, said logical channel referring to said identifier of said host Virtual Private Network.
- 9/ Network Access Server for univocally retrieving a user, out of a plurality of users, to which a message sent by a communication device and received at said Network Access Server is destined, said user being already connected over said Network access server to a Virtual Private Network not comprising said communication device, said Network Access Server being able to access to a database associating an identifier of said user to an identifier of said Virtual Private Network to which said user is already connected, said Network Access Server being characterized in that it comprises
- a logical channel controller for determining a logical channel identifier of one logical channel on which said message is received at said Network Access server;
 - means for retrieving the user to which said message is destined, according to said logical channel identifier and said user entry in said database.